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Notice of Allowability	Application No.	Applicant(s)	
	10/771,290	MOULI ET AL.	
	Examiner	Art Unit	
	Pamela E. Perkins	2822	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the request for reconsideration on 11 April 2007.
2. ☒ The allowed claim(s) is/are 98-101, 107-123 and 127-134.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material

5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____



Mary Wilczewski
Primary Examiner

DETAILED ACTION

This office action is in response to the filing of the request for reconsideration on 11 April 2007. Claims 98-135 are pending; claims 102-106, 124-126 and 135 are withdrawn from consideration.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

Please cancel claims 102-106, 124-126 and 135.

Allowable Subject Matter

Claims 98-101, 107-123 and 127-134 are allowed.

Reasons for Allowance

The following is an examiner's statement of reasons for allowance: referring to claim 98, prior art does not anticipate, teach, or suggest wherein the isolation gate extends beyond the isolation region.

Referring to claim 107, prior art does not anticipate, teach, or suggest forming an isolation gate over at least a portion of the active layer substantially surrounding the photosensor.

Referring to claim 119, prior art does not disclose, anticipate, teach, or suggest forming an isolation gate over at least a portion of the isolation regions; wherein the isolation gate substantially surrounds the pixel.

Referring to claim 132, prior art does not disclose, anticipate, teach or suggest forming an isolation gate over at least a portion of the active layer adjacent the photosensor; and biasing the isolation gate with a voltage.

For example, Cole (2007/0120214) discloses a method of forming an image sensor comprising the steps of forming a pixel within a substrate; forming an isolation region adjacent to said pixel; and forming an isolation gate over said isolation region. However Cole does not disclose, anticipate, teach, or suggest wherein said isolation gate extends beyond said isolation region and over at least a portion of a connection region formed adjacent to said isolation region.

Nozaki et al. (6,570,222) discloses forming a CMOS image sensor comprising forming a pixel within a substrate and forming an isolation region adjacent the pixel. Nozaki et al. discloses forming an isolation region around at least a portion of the pixel and forming an isolation gate over at least a portion of the isolation region (STI). However, Nozaki et al. does not disclose, anticipate, teach or suggest wherein said isolation gate extends beyond said isolation region and over at least a portion of a connection region formed adjacent to said isolation region.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pamela E. Perkins whose telephone number is (571) 272-1840. The examiner can normally be reached on Monday thru Friday, 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zandra Smith can be reached on (571) 272-2429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PEP
9 July 2007



Mary Wilczewski
Primary Examiner